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HOROLOGY

THE NATIONAL MAGAZINE
FOR ADVANCEMENT IN TIMEKEEPING

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AMERICAN AND SWISS WATCHES

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Vol. II FEBRUARY, 1944 No. 2
ELEVENTH YEAR OF PUBLICATION

☆

THE STORE THAT LOVE BUILT

ON *Quality* AND *Confidence*

EVERY building has a foundation, of course.

Every business does, too. And the foundation of the jewelry business is *quality* and *confidence.*

Without quality and confidence your store—or any store—could never have become "The Store That Love Built." And your future depends upon the continued confidence of your customers . . . the basis of which is quality.

We don't say that foundations—or quality and confidence—are crumbling under "The Store That Love Built." But we do say that in some of the stores some of the merchandise currently being sold without *proper explanation* may be making profits for the present—but headaches for the future.

There'll come a day—soon we hope—when the finer jewelry products now unobtainable will be back on the market. And, of course, they'll be back in your store—the same names, the same trade-marks which stand for the same quality, the same confidence which helped build your reputation before the war. We hope you are planning for that day now. Planning with all the courage and resourcefulness which had distinguished the jewelry trade through this critical war period. We hope that you, too, will have "readied" your stock and your customers for the return of peace. For when that day comes, when the flood of pent-up demand and stored-up cash is released, your customers will be looking for the quality, trade brands and names which have been off the market during this war emergency. For these are the products which in years gone by earned the reputations for "The Stores That Love Built"—and which will maintain them and strengthen them in the years that lie ahead.

HAMILTON WATCH COMPANY, LANCASTER, PENNSYLVANIA

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Awarded Army-Navy "E" (with star) for outstanding production of Marine chronometers and other accurate war timepieces.

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ELEVENTH YEAR OF PUBLICATION

The AMERICAN HOROLOGIST

Incorporating HOROLOGY

Published Monthly

By Roberts Publishing Co., Denver, Colorado, in the interest of the Horological & Jewelry Industry.

To advance Education | To assist in Obtaining State Legislation | To Develope Standardization | To Encourage & Recognize Effort & Ability

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our sights are set on the target of Victory. America's fighting men have first call on our services. Producing delicately balanced, precision-made parts for military communications systems, naval and aircraft equipment . . . this is our major responsibility. To the utmost of our remaining capacity, we are producing I. D. Waterproof Watchcases for American soldiers and sailors.
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with Victory and Peace, we shall maintain and enhance I. D.'s position of leadership with new and finer watchcases. We shall continue to make I. D. products the first choice of America's manufacturers, importers and retail jewelers.
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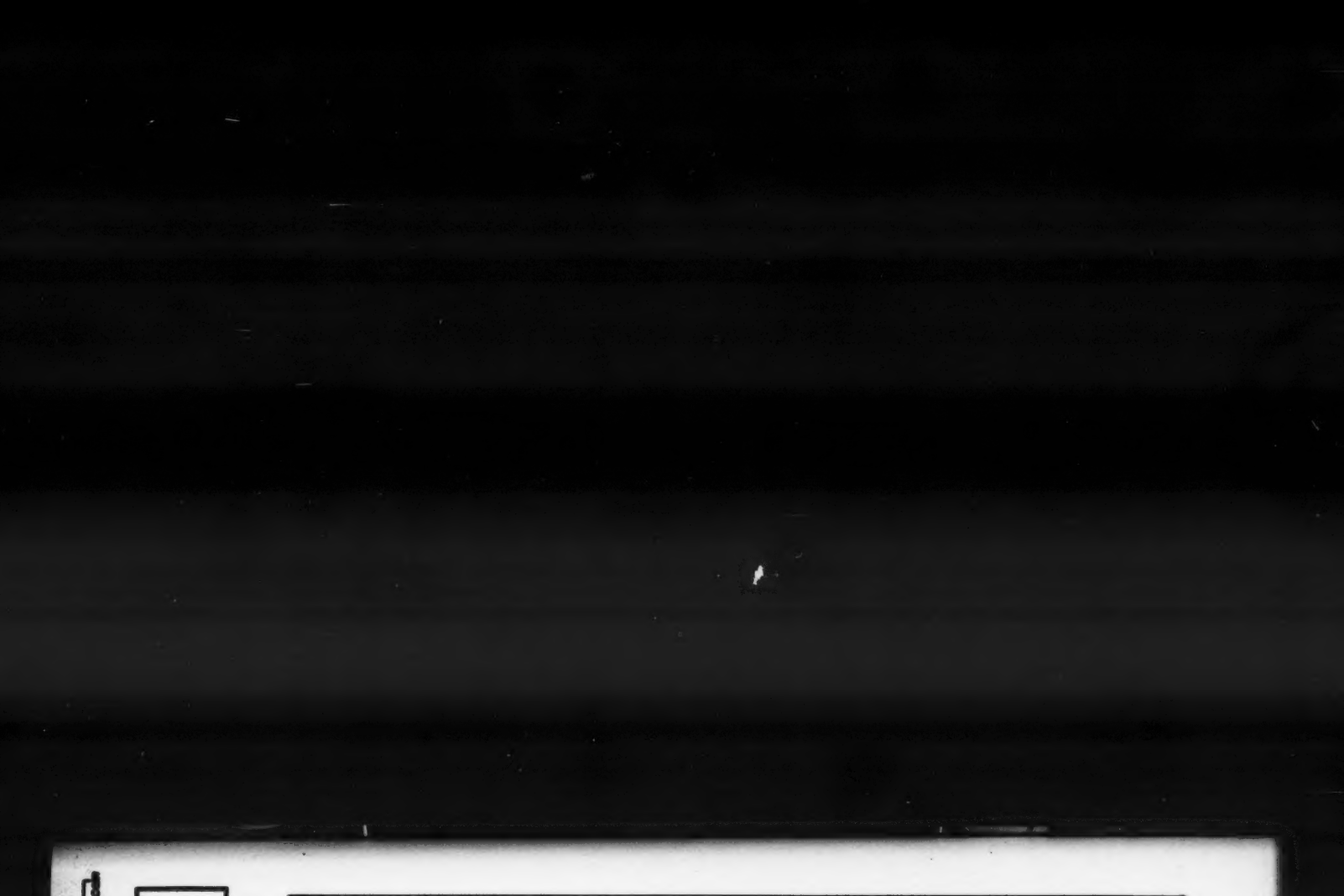
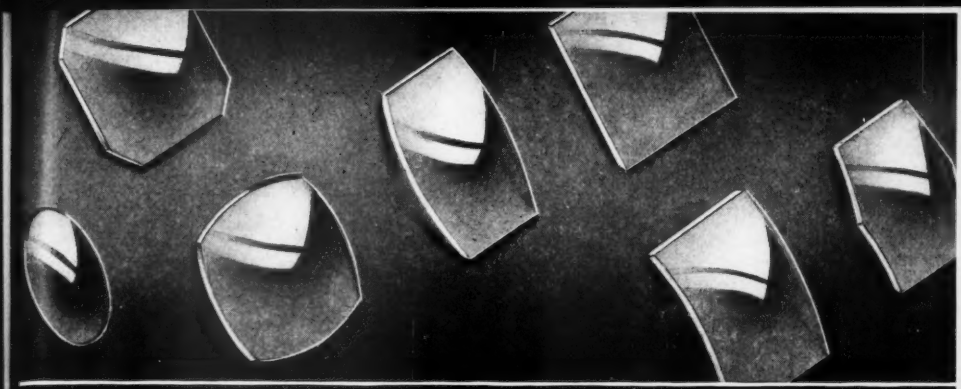
BUY WAR BONDS

ODD But TRUE

By Weil

IN 1938 A NEBRASKA TORNADO DEPOSITED HUNDREDS OF ITEMS IN FREAK PLACES, BUT ONE OF THE MOST UNUSUAL OCCURANCES WAS WHEN A DOZEN WATCHES LANDED ON A BEWILDERED GIRL.
Weil
SHOWN BELOW IS A SIGN OUTSIDE THE REPAIR SHOP OF MR. A. BLACKSMITH OF LEESVILLE, LA.
EXPERT WATCH REPAIRING DONE BY A. BLACKSMITH
HE'S A WATCH-MAKER! AND HOW!
WATCH MAKERS IN 19TH CENTURY BELGIUM WERE ACCORDED SPECIAL PRIVILEGES NOT ORDINARILY GRANTED TO COMMON FOLK.





1440

Fourteen hundred and forty different shapes and sizes of PERFIT fancy watch crystals! That's a goodly number, you'll agree — but that's how many different active sizes and shapes are regularly produced. Consider, too, that we are constantly adding to that number as new watches are marketed, and you'll understand why so many jewelers will always depend on us as their source of supply. We deliver the "goods" — gleaming, genuine, clear-glass, dust-defying crystals that are scientifically sized, shaped and domed.

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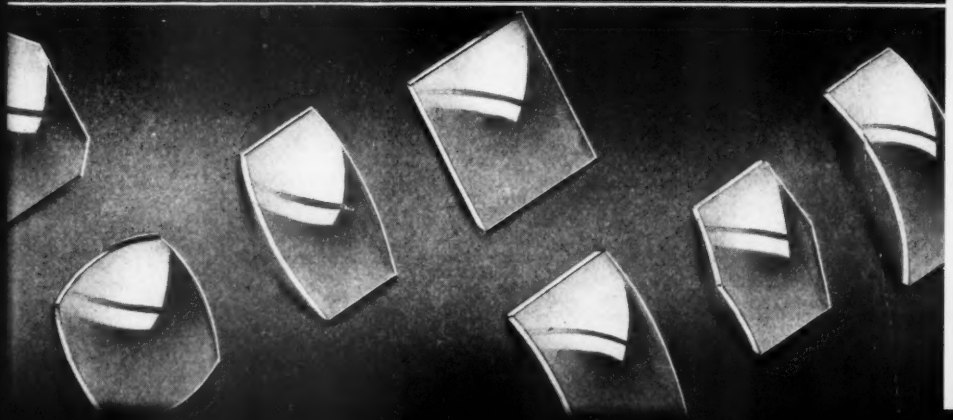
PERFIT

FANCY WATCH CRYSTALS

AMERICAN PERFIT CRYSTAL CORPORATION
653 Eleventh Avenue, New York 19, N. Y.



We Think Alike—
You and We!
We think, in freedom, of a victorious peace where willing enterprise of thinking men replaces blind obedience of oppressed peoples. We all know we must not slow up our efforts in working for that hopeful day.
When peace comes, Kestenman bracelets will be among the fine things again available in normal volume.
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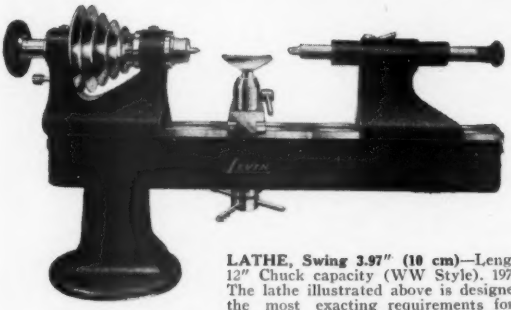
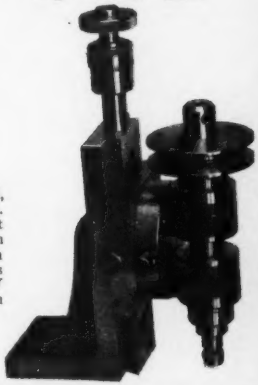
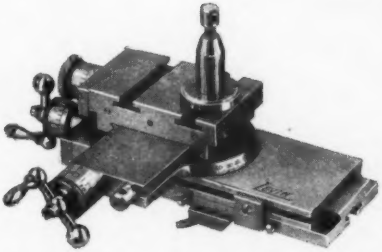
PRECISION BENCH LATHE
and ACCESSORIES



All tools shown have accurately milled lead screws and large friction dials.



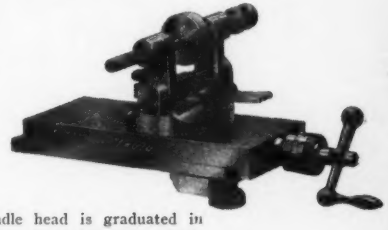
LATHE, Swing 3.97″ (10 cm)—Length of bed, 12″ Chuck capacity (WW Style). 197″ (5 cm). The lathe illustrated above is designed to meet the most exacting requirements for precision work. The form of the bed and swing are such that the head stock, tail stock and attachments are interchangeable with any others of the WW style. The spindle is designed for maximum sensitivity and is adjustable for wear.



MILLING ATTACHMENTS—An outstanding feature of the milling attachment is the ribbed vertical slide. This insures rigidity which is so necessary for smooth operation. A thumb screw locks the slide securely against any unintentional movement.

The application of this milling attachment to the slide rest converts it into a small milling machine and in many cases enables one to perform operations which would otherwise occupy an expensive larger machine.

SLIDE REST—The slide rest will fit any 4″ swing bench lathe of the WW or Moseley type. It is designed for the maximum accuracy and versatility in a tool of this size. The slides are fitted with gibs and adjusting screws to take up wear.



TRAVERSE GRINDER—The spindle head is graduated in degrees and can be set at any angle. It is clamped in position by a conveniently operated eccentric bolt. The spindle runs in hardened and lapped bearings and is fitted with a hardened stop collar.

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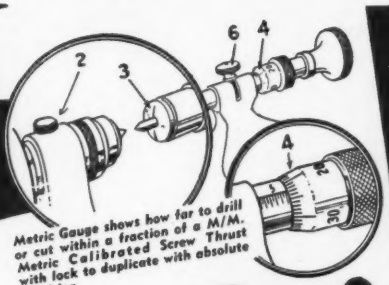
the LATHE with a brain



Metric Gauge shows how far to drill or cut within a fraction of a M/M. Metric Calibrated Screw Thrust with lock to duplicate with absolute precision.

FOR INSTRUMENT AND WATCHMAKERS PRECISION WORK

TAKES CHUCKS IN THE TAILSTOCK AS WELL AS THE HEADSTOCK •3• METRIC FEED TAIL STOCK THRUST • 4 • MEASURES DEPTH OF YOUR WORK, TO DRILL, MILL, TO CUT. •6• IMPROVED GRIP ON TAIL STOCK BINDER. • 2 • DUST PROOF OIL RESERVOIRS. •1• HEAD PULLEY HAS THREE ROWS OF INDEX HOLES FOR UNLIMITED COMBINATIONS FOR SPECIAL WORK. TAKES STANDARD AMERICAN LATHE ATTACH-MENTS.

. COMPLETE WITH SET OF 10 CHUCKS.....$175.00

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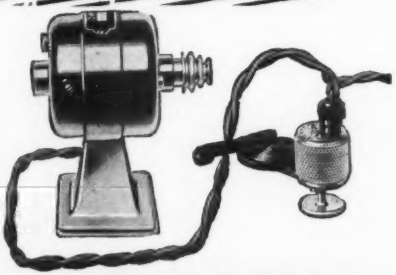
One of many important available PRECISION TOOLS and EQUIPMENT shown in PAULSON CATALOG



The PAULSON Lathe is full size and nickle-plated

LATHE MOTOR

No. 2744A. Rheostat foot control. AC or DC 110-volt. Cord and plug. 1/20 H.P. Price.....$15.00

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SURE, that envelope's bulging. But let me tell you something, brother, before you spend a dime . . . *That money's mine too!*

I can take it. The mess out here. And missing my wife and kid.

What I *can't* take is you making it tougher for me. Or my widow, if that's how it goes. And, brother, you *will* make it tougher, if you splurge one dime tonight. There isn't as much as everybody'd like to buy—and you have more green stuff than I. But remember this, brother—everything you buy helps to send prices kiting. Up. UP. AND UP. Till that fat pay envelope can't buy you a square meal.

Stop spending. For yourself. *Your* kids. And mine. That, brother, is sense. Not sacrifice.

Know what I'd do with that dough . . . if I'd the luck to have it?

I'd buy War Bonds—and, God, would *I* hang on to them! (Bonds buy guns—and give you four bucks for your three!) . . . I'd pay back that insurance loan from when Mollie had the baby . . . I'd pony up for taxes cheerfully (knowing they're the cheapest way to pay for this war) . . . I'd sock some in the savings bank, while I could . . . I'd lift a load off my mind with more life insurance.

And I wouldn't buy a shoelace till I'd looked myself square in the eye and knew I couldn't do without. (You get to knowin' —out here—what you can do without.)

I wouldn't try to profit from this war—and I wouldn't ask more for anything I had to sell.

I've got your future in my rifle hand, brother. But you've got both of ours, in the inside of that stuffed-up envelope. You and all the other guys that are lookin' at the Main Street shops tonight.

Squeeze that money, brother. It's got blood on it!

Use it up . . . wear it out, make it do . . . or do without

HELP US KEEP PRICES DOWN

A UNITED STATES WAR MESSAGE PREPARED BY THE WAR ADVERTISING COUNCIL; APPROVED BY THE OFFICE OF WAR INFORMATION; AND CONTRIBUTED BY THE MAGAZINE PUBLISHERS OF AMERICA

TIME FLIES

H. J. Finch

Address Before Los Angeles Guild

Since we are all new to each other and a friendly greeting makes a friendly meeting, let's get acquainted with each other by introducing ourselves to the fellows on either side of us.

In case you don't already know, our association is formed for the further advance of chronometrics. This association has been in effect for the past ten years and branch groups may be found in every large city in the United States. Since we are all chronometrists together and want to see our profession become something of value, let us all co-operate and gain something from our work together.

Today, the times are changing so rapidly that it is difficult to see whether you and I will be repairing chronometrics or carrying a gun within the next six months. We must all do our part for the war effort, however, even though it may mean giving up our work for it.

This talk is presented primarily for those men who will remain in this work throughout the war, and for everyone who will become a part of this work after the war.

Let us, first of all, start with our shop, stores, or whatever kind of business establishment we have. Have you redecorated it in the last few years or do you still have the same shop you had five years ago. Look at it objectively. Would you, a possible customer, like to come into your shop? If you honestly don't think you would, why not do something about it.

Begin by cleaning it. Clean it from top to bottom. If this does not help, then paint it. Put in new shelves or tables or whatever equipment you need.

Next look at your work bench. Is it a maze of tools, equipment, and parts lying here, there, and everywhere or do you have a definite place for all the things you use? If you do not have it so arranged, do something about it. Find a spot for everything you use and keep it there. While you are working, if you return things to their proper places, your shop will remain neat and will indirectly help you by making your work easier and quicker.

Before putting your equipment in the places you have decided upon, let us look at it first. Are your tools clean? Are any of them in need of repair? Are there any that you do not need? Take stock of them and see what you have. Another thing you might do, while you have your equipment under inspection, is to check and see if you have all the equipment you need. If some necessary tools are lacking (or even if they are not), why not go through a catalog and select some of the tools that you may need or may assist you in your work. New equipment is always being placed on the market and you should keep in tune with any new developments which will help you in your work.

One of the main reasons that an organization continues to function is the co-operation between members and the association, and between the members and each other. If we would all pitch in and work with the association and each other, this organization will become of great value to us.

If there are any questions troubling you regarding repairing, adjusting, new equipment, or advice of any kind, be sure to contact your association. That is what we are here for and so let us use the advantages the association offers. If there is any further question, why not contact your fellow members. I believe most of the men would appreciate getting together and talking over their work and their problems. We have monthly meetings, and have guest speakers

who talk to us about the latest methods in chronometrics. Let's arrange field trips and visit companies that manufacture the product we are interested in. The possibilities of building up a really worthwhile association are tremendous but it is up to each one of you.

After you have contacted your association and your fellow members, try improving yourself on your own. By that I mean, buy some books on the subject in which you are interested. Get yourself on the mailing list of the publishing companies and have them send you notices on the latest chronometric publications. Clip items from the newspapers or periodicals which concern your field of work. Above all, keep on your toes and don't let anything get past you.

Check the schools in your community and see if any of them offer any courses which will help you in your work. If none is available, check the technical schools for their curriculum. You are bound to hit something that will be of assistance to you. A school of any kind is a definite asset because you receive either new information or brush up on the things you already know. If you attend a class, take notes and keep them in good order. While in school choose some field of chronometry about which you know very little and do research in this field. Take a subject such as chronometry in navigation chronometry in aviation, etc. The purpose is for you to do some research in a field about which you know very little. It is rather pointless to delve into a subject about which you already know a great deal.

To assist you in your research, consult the library and get all the available books on your subject; borrow books from your fellow association members; draw from the experience in your own field; and check the history of the subject. When you have finished, correlate all this information under one theme and see what you have. The results will probably amaze you. Why not try it. Don't be smug and rest on the knowledge you already have. Expand your knowledge as much as you can. Once you are content with what you have, you cannot progress. In striving to improve your work, you will automatically eliminate any poor work.

The value of precision cannot be described in simple terms. Without it, there could be no co-ordination of activity; particularly during war. Contributing to precision is chronometrics, the science of measuring time, which includes such units as watches, clocks, guages, barographs, recording barometers, etc. The value of these units is admirably illustrated by means of the activity of an aircraft combatting the enemy in foreign skies. It is imperative that all details of a bombing mission over Europe, the South Seas, etc., be worked out to a minute detail. This requires exactness on the part of every individual and every mechanical devise participating in this action.

In the first place, it is necessary to navigate the ship to a particular spot at a particular time. This cannot be accomplished without the aid of chronometrics. When a target has been successfully reached on the specified time, it is necessary to accurately sight on the target. Unless the sight is accurately aligned at an instant's notice, the mission is a failure. A few seconds too soon or too late will make all the difference between a successful and an unsuccessful mission. This is merely one illustration of chronometrics and its value in the world of today.

In aircraft instrumentation, a certain amount of allowance must be permitted because of mechanical errors, vibration amplitude, temperatures, etc. Some of these allowable errors include the following:

(1) The tachometer indicator, which indicates the rpm of the engine, has an allowable tolerance of 30 rpm at O.

(2) The altimeter, which indicates the altitude of the airplane, has an allowable tolerance of 30 feet at 0.

How good a loupe DO YOU NEED?

If you are a watchmaker by profession, your living depends on the efficient functioning of your eyes. Can you afford to risk your eyes—and your living on a loupe that may—because of its imperfection—impair the usefulness of your vision? Bausch & Lomb loupes are precision instruments, made to give a flat sharp image and *no* eyestrain. *Ask your jobber.*

BAUSCH & LOMB
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(3) The rate of climb indicator, a device for indicating the amount of climb and glide of an airplane, has an allowable tolerance of 2 seconds.

(4) The aircraft temperature guages register fuel, oil, cylinder temperatures, etc., and have an allowable tolerance of 2 per cent.

(5) The automatic pilot, which may control the flight of the airplane, has a drift error of 2 degrees to 4 degrees every minute.

(6) The compass has an allowable tolerance of 3 degrees.

In the field of chronometrics, however, such tolerances are rarely present or permitted. An aircraft clock may never be a second too early or too late in its timekeeping routine of the assigned mission; it must be precise and accurate at all times. There can be no deviation or tolerable allowances when time is involved; it must be accurate **now.** In temperature tests it may have an allowable error of 15 seconds per 24 hours temperature change -35 degrees. C to 50 degrees C (-41 degrees F to 122 degrees F.)

The future of chronometrics is boundless. Aircraft instrumentation is leaning more and more towards the principle of time. Time will become a big element in making life easier and simpler for the individual. Time will control the operation of machines by starting and stopping them automatically according to a time schedule.

To prepare ourselves for the post war period, the training we now have, and the training we will acquire within the next few years will be of great benefit to us. It is no longer possible to bring in a "good man of the street," and expect him to know our job. It takes skill and years of study and improvement. There is a definite future in chronometrics for the man who exerts himself to gain more knowledge, to improve his workmanship, to become acquainted with his fellow craftsman. Are you one of these men?

At the present time, companies are

desperate for the services of capable men in our profession and they will be just as desperate, only more so, as progress carries our work to greater heights.

Let's not wait for the time to come but go after it.

Note: The balance of the lecture was devoted to a technical discussion on the electric gyros. This is not for publication, however.

Alarm Clock Blues

Oh, alarm clock, beside my bed!
Your heart still beats—but your song is dead!

You used to ring with brazen gall,
But now you don't ring at all.

Oh, silent clock, should I rejoice
That you have lost your singing voice?

When I should use my turret-slide
I'm turning on my other side!

I've tried to buy another clock,
The answer is: "There's none in stock!"

Can it be that you're aware
Priorities have made you rare?

Forget my ire (it may be hard),
I threw you once into the yard!

Let's join hands—for Victory!
And be my Morning Symphony!

—Malcolm Hyatt.

Correction
Old Clocks Predominate

By Leslie E. Arndt

In the September 1943 issue, this article appeared on page 48. The writer got his article mixed with other personalities.

First, Mr. V. W. Riedel does not make articles from fish scales, nor does he have a collection of clocks numbering 155; his is much less. He does not possess a Taber Spindle Chime or a Doty clock as described and he most certainly does not entertain 300,000 visitors annually.

He is a collector of old clocks and enjoys his hobby immensely.

Don't Waste 33c Out of Every Dollar

That's just what happens if you don't take advantage of the economical price of

ZENITH CLEANING FLUID

Made from a reliable time-tested formula, by experts who are thoroughly familiar with the exacting requirements of every horologist.

Zenish Cleaning Fluid will accomplish these definite results:
It will clean a watch faster and better than anything you've ever used before. It will never cause rust - even to the most delicate parts. It will clean brass to a bright finish - It is non-inflammable.

Zenith Cleaning Fluid
Available in two convenient sizes

Quart • 75c Gallon • $2.00

A generous FREE sample is yours for the asking. A post-card with your name and address will bring it to you.

ZENITH CLEANING FLUID CO.

52 Beekman Street New York 7, N Y.

Sold by Jobbers From Coast to Coast

Awaken To Facts, Horologists!

U. H. A. of A. acts due to your splendid co-operation and acceptance of "B" plan.

As you read this article our Special Representative, Mr. R. W. Applegate, is in Washington, D. C., fighting your cause before several Governmental Bureaus, Agencies, and Departments.

You read "Its About Time" and from thousands of enthusiastic letters, telegrams, etc., your National acted. Mr. Applegate was prevailed upon to act as your representative and left on one of the greatest assignments ever assigned a member of the trade. His gigantic task is to bring about those things referred to in "Its About Time", as well as numerous other beneficial and cor rective measures.

A proper and adequate priorities rating for all Horologists, Manufacturers, and Supply Houses.

To bring about the establishment of a Horological Laboratory to pass on standardization and qualities of Timing devices, tools, etc.

Proper laws to protect the consuming public against uncertainty of purchasing watches where replacement parts are not available, waterproof watches when wrenches are not obtainable.

Invoking the existing laws against misleading advertising claims.

Uniform grading of Horological Technicians and Instrument Technicians.

Effective co-operativeness between all Manufacturers, Importers, and Distributors of watches, clocks, instruments, and Material and Horologists.

A broader attempt to eradicate the old traditional guarantee established by retailers; not the Manufacturers and Importers.

Stop misrepresentation regarding timing devices and cases.

Do some of these things in your mind need caring for, do you want them changed? We know you do because hundreds of Horologists have strengthened the National through 1944 membership and each membership strengthens future programs. Who is the National? You, and You, and all the Horologists who believe in doing their share to support ethical progressiveness.

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"Horologists from every section of America, united in a common cause; not selfish; not arrogant, but tolerant and persistent in a worthy cause of education and profession and Industry."

CONFERENCE OF W. M. C. AND U. H. A. A., FEBRUARY 14, 1944

Eight Regional Supervisors of the Apprenticeship Training Service of the War Manpower Commission covering practically the whole of the U. S. west of the Mississippi River, met in session in the Security Building in Denver with Mr. Orville R. Hagans, Executive Secretary of U. H. A. A. and Emanuel Seibel who is chairman of the School Standard Curriculum and School Accrediting Committee of U. H. A. A.

Plans were made for very close cooperation between these two organizations in the matter of rehabilitation of service men in the profession of watchmaking.

They came to an understanding on this matter and Mr. Hagans will go to California the forepart of March and confer with the supervisors in San Francisco and Los Angeles with the possibility of opening a school in the Pacific Coast Area.

Mr. Seibel is going to Kansas City to confer with Supervisors Department in that city and with the Watchmakers and Jewelers Joint Apprenticeship Committee on a program to be set up in that area.

Toledo Watchmakers' Guild

New officers for the year 1944 are as follows:

President, E. B. Schneider; Vice-President, George Cordes; Secretary-Treasurer, B. F. Cobb, and Trustees, Charles Vuille, and Henry Vuille.

On the desk of China's Generalissimo ChiangKaiShek alongside a set of old-tyle Chinese writing brushes stands a streamlined American Alarm clock marking TIME to victory for the United Nations.

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Some Observations On Watch Design

By G. P. Heckert

It appears that in the past the designers of most watch movements and the designers of the cases were not as familiar with the service a watch gives, as the watchmaker who has had the care of watches for years, nor are they in as good a position to compare the good and bad points of all makes and styles of watches, as

The influence of style is so important in the selling of watches that the designer ignores the mechanical limitations of watches in order to produce "something new."

When the customer has paid a substantial price for a watch, he expects it to give long, and trouble free service, in proportion to the price paid. He does not know that when he gets an extra small wrist watch for his lady that it should only be worn for dress occasions and not as a timepiece to be relied upon for daily service. The writer knows of more than one thousand dollar wrist watch in which the owner wished to have the movement changed for one that would be trouble free, not knowing that a new movement would have the same limitations as the old one. The owner of one such watch is waiting for a lady's wrist watch to be brought out with works a little larger than the average lady's wrist watch before buying another one.

The writer has looked, for a long time, for an 8½ to 10 ligne watch for this customer, but has found none. I believe there are enough women in the market for watches with slightly larger movements and with cases that would exclude the dust better, and with more contrast between the hands and the dials, to justify the manufacturers to pay some attention to this demand for a more reliable women's watch.

As to soldiers' wrist watches, a large number of them go out of commission on the first maneuvers. By contrast there are many of our older men customers who carry cushion shape wrist watches with snap backs and bezels and round crystals, with 0 to 8/0 size movements, which have been in service for years. One whom I recall is a foreman on outside work and he still carries his watch of World War No. 1, on his job.

Take the matter of excluding dirt. The crystal seldom is fitted well enough in a new watch that the customer will not return to have the crystal "cemented." Within the last year, or two, plastic crystals have been improved to such a point that they would be good standard, or optional, equipment on new watches.

Very little effort is made by manufacturers to prevent the dirt from getting in around the stem, in most watches. One maker provides a little shield of very thin metal behind the stem hole of the case, and with a neck which extends up under a recess in the crown. This prevents a great deal of dirt from getting in and thus prevents the wearing of the stem bearings. The Waltham Company made a tiny rectangular movement a few years ago in which this neck was extended as a part of the plate work out through the case. This both excluded the dirt and provided a longer and stronger bearing for the stem. Such an arrangement would reduce breakage of the stem.

The losing out of the stem could be minimized if some locking device would be provided to prevent the detent screw from unscrewing. We have seen an amateur job in which a small plate screw was put in beside the detent screw and with the head tightened down on top of the head of the detent screw. This really did the work. Also there was an 18/0 rectangular Elgin made a few years ago with a negative acting detent screw, which did not fail to hold. It is needless to say that new watches should be received with the crowns tight enough not to unscrew. What watch-

maker has not been faced with the irate customer who has just lost the crown off his new watch?

Quite a number of watch cases have been designed with the bracelet lugs rather long and curved downward around the wrist, or dropped straight down, thus causing the spring bars to be located too far below the line of the snap groove which holds the two halves of the case together. Pressure against the watch will cause the bezel to stretch outward, allowing the lower half of the case to loosen, and fall out. Crimping the edges inward with the pliers is only a temporary remedy, because, with use, the metal continues to stretch and it can not be permanently corrected. This is particularly true with solid gold cases, and in which case the owner thinks that according to the price he has paid he should have no trouble. We have had a gold case recently in which the lower half of the watch would drop off and the customer stated that if the future performance of the watch was impaired from this cause, he would expect us to repair it free of charge, as well as exchange the case for one which would not spread. The price of the watch was $90.00 and his feeling is justified. The watch company will do nothing about it, yet the customer was not satisfied until we did something that corrected it.

In the matter of catching hairsprings, there may never have been a watch entirely free from this difficulty. It was undoubtedly reduced to a minimum in one watch which was designed with this trouble in mind. This watch, the 8/0 Hampden, had one or two less coils in the hairspring, and with more space between the coils, than in the average hairspring. The overcoil was a little shorter than average. I do not recall ever seeing one of these caught. Any theoretical disadvantage was certainly offset by its freedom from hairspring trouble.

Steady pins that stick would surely be better if they were a little loose. It seems that the oftener it is necessary to remove a tight balance cock, the tighter the pins become, and consequently the more risk of breaking the pivots when drawing the cock down tight, or removing it.

In the regulating of repaired watches, timing, or so-called meantime screws are of the greatest value to the watchmaker, yet very few small watches of today have them. This shows an utter disregard, on the part of the manufacturers, for the convenience of the watchmaker. The using of timing washers is always experimental, and the results attained are usually very far from the legend on the timing washer bottle. It is usually necessary to touch up the pivots, with a burnisher, in order jobs, and this invariably makes the watch gain. In watches from 5½ to 8 lignes, a pair of one minute washers will often make a difference of five minutes a day. While timing washers must be resorted to for major corrections, and for poising, timing screws hasten the finishing up of the timing, and the delivery of the watch to its owner. No watchmaker has assortments of timing screws for all makes of watches.

By visiting a factory timing room, it is apparent to any watchmaker that such costly facilities are beyond his reach, and besides he seldom has two watches alike, at the same time for regulation. In this connection it may be observed that in some watches—the Illinois for instance—the balance cocks were cut short enough at the back end that they would not touch the case, and the balance and cock could be lifted clear of the movement without uncasing, when alterations on the timing screws were necessary, thus much time was saved.

There could easily be an allowance made for observing the passage of the jewel pin in and out of the fork by not having any excess diameter to the impulse roller, in the double roller escapement, beyond what is actually necessary to carry the jewel pin, thus

not obscuring the view of the fork action. Also it seems possible with modern friction jeweling to drill a round hole through the lower plate close enough to the jewel pin to observe this important relation from the back. The writer has never seen a watch with visible fork and roller action in which any adjusting was necessary at that point, proving that this peephole was useful to the factory inspector too.

Concerning the number of jewels and their position—the public understands that a fifteen jewel watch is better than a seven jewel one, and that a seventeen or twenty-one jewel watch ought to be better than a fifteen jewel one. They assume that the jewels are in the places where they will do the most good, but only the watchmaker knows the truth. How many small watches of today, with more than fifteen jewels, contain a lower center jewel. How many of these watches are "decorated" with endstones to make up the number of jewels desired? If there is any advantage in endstones on train wheels, the writer would like to see some statistics on their performance when compared with watches that do not have them.

Now as to the non-magnetic balance. After the balance staff has been replaced, a time or two, the wheel may become decentered and with the result that the watchmaker may be obliged to replace the balance with a new one, maybe free of charge, and encounter timing troubles along with it. One form, or another, of a friction staff should minimize this risk. And why couldn't the staff be threaded and the balance screwed on? The hub in the center of the balance could be made thick enough to permit the use of a much longer hole than there is in the present form of balance arm. A turn, or two, of thread could be left showing, to warn the unsuspecting watchmaker of the method of attachment. A balance with a long friction sleeve in the center would be better

Some of these features would add slightly to the cost of production, but watches so equipped would have the endorsement of the watchmaker at the bench and the factory would eventually benefit by the recommendation. The customer who is discarding a troublesome watch often asks for the advice of the watchmaker before buying the next time. He is certainly advised to buy the easiest watch to repair and regulate.

Tempus Fugit

Elgin Eddie: "Why do you carry that clock upstairs, every night?"

Bulova Bob: "Because I like to see it run down!"

Ingersoll Joe: "My clock is a peculiar thing."

Longines Larry: "How do you mean?"

Ingersoll Joe: "Well, whenever I look to see whether its all right, I find its face covered with its hands, and yet, as soon as it gets all wound up, it goes on a strike, every half hour!"

Jack: "What makes your clock so handsome?"

Tom: "Well, it always has a good figure; keeps good hours; has striking features, and graceful hands!"

Sometimes History Defeats Itself

Shakespeare pulled an anachronism once. In his play, "Julius Caesar," he has Cassius say, "The clock has stricken 3." (Act II, Scene 1.)

As there were no striking clocks invented, in the time of Caesar, it couldn't happen.

And Then She Struck One

She: "How do you know it is 8:15 p. m., you have no watch with you?"

He: "I can tell by the clock in your stocking."

Idioms of an Idiot

Plato: "Every time you read the hour on your sun dial, you speak with an accent. What causes that?"

Cicero: "I guess it's because I am a DIALectician!"

—Carroll Van Court.

Success Secret

There was a young nut on Psychology;
(I'm telling this with my apology);
Who said he lacked time
To succeed in his climb,
So he took a good course in Horology!

Latest In Watch Repair Shops

Denver now has a new and unique Time Service Shop; one not of the ordinary type.

The store is situated in Denver's largest Medical Building Lobby with an estimated traffic count of 22,000 daily.

As one enters the lobby he cannot avoid being attracted to this exclusive Time Shop which appears to be a part of a spacious lounge. Every effort was used in its design to break away from old customs by placing the Horologist in the center of the stage setting.

The graceful drapings, soft lighting and pleasant surroundings, make this store one of distinction. Similar repair shop creations are being planned. If we can help you or others in improving your store or shop in specializing in Horology contact Orville R. Hagans, Associated Enterprises.

Horologists must take the step forward to uplift their profession, no others will do it for you.

Mrs. H. W. Newcomb, of Denver, Colorado, who lost a valuable WATCH, told Patrolman J. S. Breuch that she had received an anonymous telephone call inquiring about a reward. Mrs. Newcomb offered $10, but the caller replied: "I'll wait until you boost that to a $50 war bond!"

America and Canada are helping wake up Great Britain. An item in the Commerce Department's "World Economic Notes" discloses that both countries are exporting alarm clocks to England.

Jeweling Past and Present

By Emanuel Seibel—Conn.

Jewels were invented by Nicholas Facio, of Genoa, about the year 1700.

The first jewels were much larger than the present ones. I have seen some as large as a quarter inch in diameter.

Jewels are made of garnets, sapphires and rubies, and recently of synthetic rubies and sapphires, which are said by some to be better than the genuine jewels for this purpose.

Garnets are not used so much today and were only used in the cheaper grades when used. They are too soft and break to easily.

The first jewels were set directly into the plates and bridges of the watches and the replacement of these is always a chore of some difficulty, especially if the seat or bezel was marred or destroyed. The difficulty was because you had to replace with one exactly the same diameter and thickness to get correct endshakes, and it might be quicker by far to take any jewel which was larger and set it in it's place.

Swiss watches are made so, to this day, and cap jewels are set into small discs or some are laid in place and held there by discs or spring arrangements.

There is no difference in principle in setting jewels which way it is done, directly into bridge or into separate settings which in turn set into recesses, and these held in by screws or burnished fast.

The jewels are mounted in two ways depending on the type of pivots for which they are intended, straight pivots always take a flat faced jewel which is always mounted with flat face up. So that the flat face is turned to the square shoulder of the pivot. Cone pivots should have a jewel with a slightly curved face and the pivot should come through from the back, cupped, side and out on the curved side. A great many small watches ignore this today especially the Swiss, using a flat faced balance jewel.

The first requisite for successful jewel setting is that the recess for the jewel shall not be absolutely any larger than is necessary to receive the same, and the seat on which the jewel rests shall be as narrow as possible and still give it a firm base to rest on. The first keeps the jewel centered positively and the second assures that the jewel will stay flat, which two conditions must prevail or your jewel causes trouble.

When you mount jewel in plate directly you must mount it center and flat or you are in real difficulty, for there is no way of truing in the plate, altho this may be done when set into settings first, and it is customary for factory to true jewels (all jewels) after they **are set in settings.**

Also by setting into as close fitting recess you can use a much smaller burr to hold it securely, and every bit so, as a large burr.

After pushing jewel into the setting from your wet finger and having first adjusted your tee rest to the right height for your burnisher, you set your burnisher just off the edge of recess and cut straight down to below the level of the face of jewel then turn burnisher over to force the burr hard against the jewel. Lift the burnisher and set on the top of burr and cut it down on the face of the jewel.

There are two reasons for this, it gives additional security to the burr and seals the burr so that in cleaning no solutions might lurk under the edge to spoil the oil shortly after the watch has been in use.

A jewel set in this way will never come loose except in case of violence.

You may wonder why I said to wipe jewel into setting from a wet finger. You pick up your jewel with your finger after you have touched your tongue with your fingertip, this holds the jewel till you can get it into its recess, also rubs enough saliva into the recess to hold the jewel there un-

til you can burnish it tight, stick your burnisher to the end of your tongue and you have a good lubricant for burnishing.

Cap jewels should be set so that the curved face meets the curved face of the balance jewel, to facilitate the capillary action which holds the oil to the pivot. This is generally ignored today.

Roller jewels are set either with shellac or friction tight. The latter manner is rather difficult for the watchmaker at the bench and is not necessary as you can secure the rollers complete very easy. They should be set perfectly upright, but if you have a short fork it will be necessary to tip it forward.

Pallet stones are set with shellac also, and in cleaning these and balances you must use caution so as not to loosen pallet stone or roller jewel

The method of operation in setting is carried on somewhat differently in the factory, instead of using a special graver for recessing for jewels, use a jeweling caliper, an attachment for the lathe which when used, automatically cuts a recess exactly fitting the jewel, and approximately the right depth.

The man in the factory must turn them out in quantity and a days work in the factory was in my days 1,000 and upwards, that means 125 an hour and upwards. I suspect a great many would say it was hardly possible, well I had a side kick in my factory days who turned out 2,000 a day, day after day. I promise you he did not waste any time.

Now, to the procedure at the factory. A man was given a lot of 1,000 or more jewels first he sifted them out into sizes. By so doing he saved considerable time for he can set jeweling cal'per (the factory term is swing rest) to cut a seat, correctly, in a wink of an eyelash. This caliper has two or three fingers (a) which are adjustable, one is set so that when a jewel is placed in front of it and the swinging member (b) is brought up to it, it will cut correctly the seat or recess, before removing the jewel the next finger is moved forward to touch the swinging member. Now we are ready to go ahead, full steam ahead. You set each size separately and when you begin to set another size you reset the second finger for this size.

You used a step chuck or a stepping device for holding the setting, in the factory a step chuck is always used.

The setting in factory practice comes to the setter prepared a trifle larger than the finished product, has a small hole drilled through it and the back chambered out.

The cutter has to be very carefully made and carefully tempered. It performs a double duty in one operation, it enlarges the hole and cuts a seat at the same time.

You will notice on careful examination that point (a) is just a trifle back from a line on which the point (b) is situated. Point (a) opens the way, and (b) cuts the seat on which the jewel is to rest. These cutters should be just a trifle smaller than smallest jewel in the lot.

The depth of the seat is also regulated automatically by a stop on the back of the spindle which is set so as to take care of the thickest jewel in the lot, so that it may be set 2 or 3 100mm below the top surface of the setting.

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YOU simply fill cup level with Marshall super strength cement provided by heating over an alcohol or gas flame. Cement melts almost instantly. When cement has melted, apply back of watch case to cup and allow to cool. Then use wrench on cup to remove back of case, holding case in vise block.

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TO REMOVE CUP FROM CASE - - -

Insert any ordinary case opener between cup and case or tap cup lightly with wrench. Cement will adhere to cup and case and can be used again by re-heating. If any cement adheres to case, it can be easily removed with gasoline, naptha, or rinsing solution. Vise block can be held in hand or bench vise.

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Mangled Overcoil

By C. H. HORNING

How to straighten Mangled Overcoil.

The purpose of this treatise on straightening a mangled overcoil, is mainly to make a simple method which will save lots of time and avoid a lot of unnecessary work to bring the watch to time. I wish to make clear that this is not a copied idea of some other Horologist, but merely a system I worked out for myself nearly ten years ago, and in no event have I had to add weight or remove weight from the balance to bring the watch to good time keeping. I find a large increase in these jobs, due to the fact that the younger wearers of watches, like to remove the movement from the case or remove the back, which ever it might be; they see the overcoil, and think the spring is caught, and then the trouble begins, with a toothpick, pin or some other device which they might choose, in fact I've had a number of people tell me thats what they did.

I do not mean that every mangled overcoil can be straightened, because they can't, but now during wartime and the shortage of material, I find it very important to know how to do a lot of jobs which we would ordinarily replace with a new repair; and without a doubt will give as good a satisfaction as they did originally.

Step No. 1

Before removing the balance and hairspring from the movement, hold the balance in beat as nearly as possible, mark on the inside rim of balance wheel the position of the stud while it is fastened in the balance cock. Most Swiss balances have a stud position marking on the top edge of the wheel.

Step No. 2

Remove the balance and hair spring from the cock; decide whether you want to remove the hairspring from the balance to do the work; if you do choose to remove the hairspring; first mark on the inside of the balance the position where the first bend or knee of the overcoil began, then remove hairspring and proceed with the work. The importance of these markings will help determine the type of curve to make as well as which coil you wish to follow with your last curve for the regulator pins, at this point it is better to replace the balance or hair spring to the balance wheel, in the position of your last marking, that was where the overcoil took its first bend, this definitely tells you the correct coil to follow, to bring the stud to the first marking.

Step No. 3

Replace the balance and hair spring to the cock, in every case you will find the hair spring to be centered

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as closely as you usually do, when you put on a new spring, about all that is left is to center and level off the spring; you will be more than pleased with the job for which you are entitled to a good price, and furthermore you will do a lot of these jobs which only take a few minutes, where you would probably wait three or four days or longer for a new repair.

Without Injury To The Balance

By E. D. KIPPS

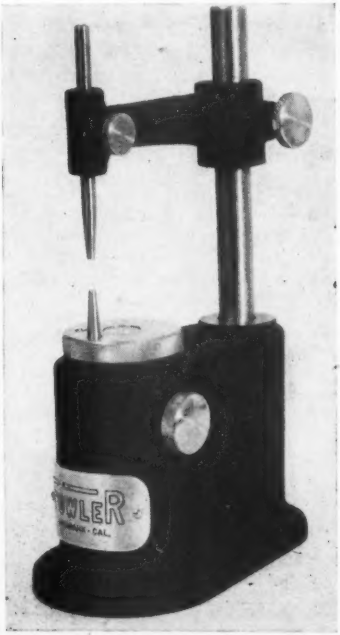
For some time, I have followed the 'Reports on Botch Work' with considerable interest, and I can no longer resist the urge to speak my part on what I think to be one of the most universally practiced pieces of botchery.

Now in the cases cited by Mr. Nielson and Mr. Metzler, they are bad, yes; I would say to a point that is criminal. But what about a good majority of our so called top notch mechanics who use staff removers to drive out balance staffs? I say a good majority, and I am using as a criterion three different locals; two out of state (both in large shops) and one in my own back yard where I have stood and watched this butchery go on.

In the case of the local condition, I questioned one of the offenders about the use of this so-called tool and his answer was "ah—ya can't hurt a balance that has steel arms. I never use anything else. Why, you're old-fashioned. Get in line, boy."

Now here is the gag—he was a certified H. I. A. man. To make matters worse, there was a young man, new at the trade, in his audience who promptly called my attention to the H. I. A. certificate. This meant that the young man would go about that practice himself because he had the word of a certified man that there was nothing wrong.

Later, in a conversation with a



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R. P. (DICK) GALLIEN

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group of the 'top-notchers,' I again condemned the practice. However, in the meantime, I had gathered some information and did some research on my own. I pointed out that I had picked twelve old balances, some with hard arms, some with soft steel, etc., removed the staff by cutting off the balance seat and removing from the under side, replaced the staff, driving them out with a staff remover. In every case the hole had been swelled. The hard arm wheels were not affected as much as the softer.

Then, I set about with more wheels and released the rivet by under-cutting with a graver. (Understand, all wheels had steel arms). I took measurements with plug gauges; data from an occuler micrometer; data on the amount of distortion; data on everything. Even took it into some of Mr. Noyen's T. W. A.

What happened? First, a hush fell, yes, a stillness that could be heard. Then from behind a red face, distorted with anger, I was told that I didn't know how to use the tool, and that I didn't know how to sharpen a graver.

The rest of the crowd simply held on to that awful silence. And I know that I, with certain ones of the group, was classified as having a canine maternal heritage.

Why, when no less an authority than Louis and Samuel Levin, the Waltham Watch Company and many others, in their publications heartily condemn this practice, will men who should know better defend and continue this botchery?

No less than three out of every five fine watches are reduced to mediocre time pieces by the use of this tool, (and I use the word loosely). Further, it causes the user more time and effort than to do the job right, notwithstanding the trouble heaped on to the man who does try to turn out a good piece of work.

Now here is one for the National Association Officers to sink their teeth into. Why not adopt a resolution to ban or to boycott the use of this, or any other tool for that matter, that does not measure up to high standards? Or do we have any standards?

Why doesn't this Association have a committee or body to set a standard of approval for tools and equipment used by the horologist? Other trades and professions have these institutes of approval. But, in the name of heaven, if we do set up an approval system, let us make sure that it cannot be exploited by mercenary jobbers who would sell or add an extra ten per cent because of an association approval.

Here is one of the many reasons why I think we need a board of approval: (I quote from the catalog of one of our largest jobbers selling tools for one of the best known makes on the market), "Select the proper hole in your staking tool die,

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By Donald H. Jacobs

Associate Physicist, National Bureau of Standards; Lecturer in Applied Optics, The George Washington University.

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The American Horologist

228 16th St., Denver, Colorado

adjust the Blank and Blank staff remover as per directions, strike punch a sharp blow with hammer and staff will be removed without injury to the balance." Did you get that? "Without injury to the balance."

An old college professor once said to me, "Son, if a thing or principle has been tried and found true, it needs no defense." So, what am I yelling about? Simply, that the public should have the protection that we, ourselves, demand from others.

"Maintenance and Servicing of Electrical Instruments"

By James Spencer

Strange as it may seem, this subject of maintenance and servicing of electrical instruments has never previously been covered in book form. It is written in a lucid style, and was developed from original class notes by the author for teaching the subject to trade schools and to new personnel of a manufacturer's instrument department.

Each general type of instrument in common use is first covered with a simple explanation of the underlying principle of operation, and then followed by detailed instructions on maintenance and repair.

The book is very timely as a contribution to the war effort in the field of teaching the maintenance and repair of combat instruments of both the Army and the Navy. It will also be found helpful for the upkeep of essential instruments used in industry.

256 pages, with 274 illustrations. Bound in Fabricoid, size 5 inches x 8¼ inches. $2.00. Book Department The American Horologist, Denver.

The Clock That Was Kind

How many of us wish that the alarm set for six in the morning would somehow forget to ring? Well, Mr. Early Riser, who would have set his alarm (if such a thing had been in use then) before he went to bed on

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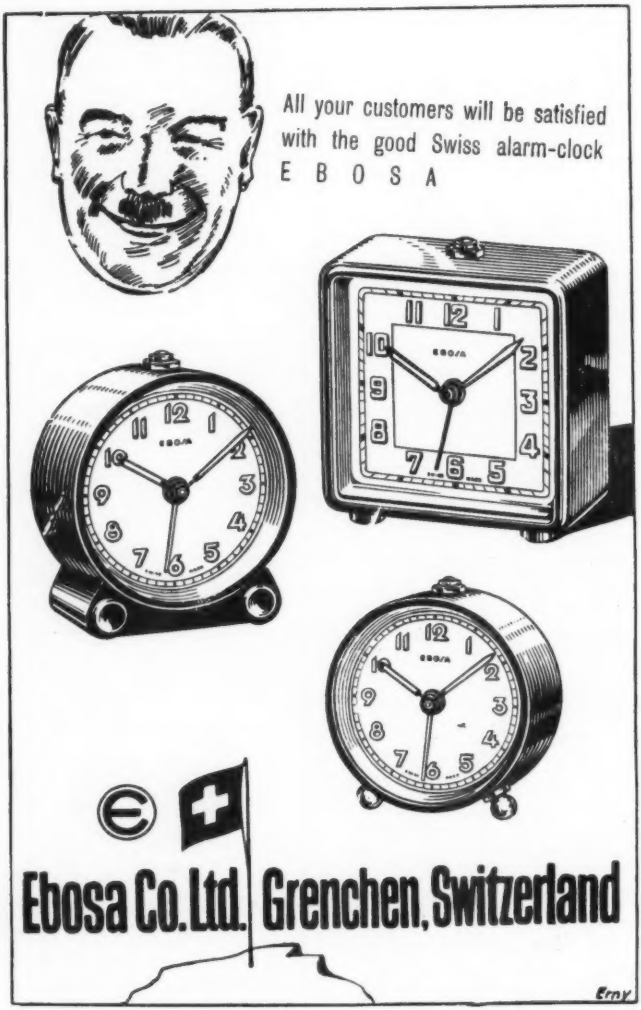
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Erny

the night of September 2, 1752 in England, would have awakened to find that a strange thing had happened. Apparently, his clock had permitted him to sleep, undisturbed, for eleven days! Yes, he had gone to bed on September 2 and he had risen on September 14. If he had been Lord **Chesterfield, he would have been well-**satisfied on that morning for, through his influence, the new Gregorian calendar had been adopted in England. The former calendar, computed by Julius Caesar, had not made sufficient allowance for leap year, and therefore the date in England was eleven days behind time. When the change was made, the error was simply omitted, and English history has a totally blank spot for a week and a half which never existed. Perhaps the workingman of that time spent a good while trying to figure out how he happened to have an eleven-day vacation which he never remembered spending.

Watch Has Lot Of Time To Get Around

By Frank Cipolon

A wrist watch without inscription, lost by a marine in the rain-soaked jungles of Bougainville Island a few months ago, has come home after a circuitous journey of thousands of miles.

The watch, dropped by Pfc. Leo M. Schneider, Jr., of Memphis, as he leaped ashore, was found by a marine captain, who later turned it over to a Red Cross worker in a San Francisco hospital.

The Red Cross worker, Virginia Benham, traced the watch from the manufacturer through the wholesaler distributor and jewelry firm finally to Schneider's parents in Memphis.

Still in good shape, the watch is being saved for its marine owner who has some unfinished business in the Pacific.

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Information-Please!

Directed by
W. H. SAMELIUS, Chairman
Science of Horology and Technical Advisory Board

ACF: Am obliged to make many old verge escapement balance staffs, but my system seems to be a terrible time killer. Please indicate what is the correct procedure to do this?

ANSWER—Your request is rather an unusual one as this style escapement has not been built for a century, however, I take it that you are very much interested in antique watches and making a specialty in this kind of work. The usual procedure for making a new verge will be:

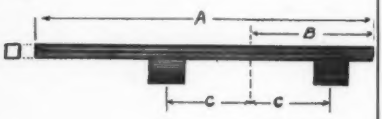


Fig. 1

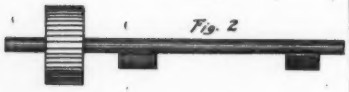


Fig. 2

Fig. 3

W.H.S. 1-44

Select a piece of sheet steel thick enough so when finished the axis of the staff will have sufficient diameter for the strength and length of the verge. Take overall measurement for the full length of verge desired, measuring from the outside of both hole jewels (A). Then measure from the lower hole jewel to the center of the escape wheel pinion (B). From this line, measure the radius of the escape wheel and mark off dimension "CC". That will be the center of each flag. These dimensions are then followed and cut out of flat stock. Your judgment will tell you about how wide each flag should be, depending on the size of the escape wheel and space. After the piece has been roughed out, the axis is then rounded with a file for it's entire length. We then grip both flags with pliers and twist them to an angle of 100 degrees, Fig. No. 1. A brass collet is then fitted to the upper end of the flag, Fig. No. 2. This must be a press fit or if necessary, may be sweated fast with a touch of soft solder. The staff is then to be pivoted. To do this work make up a cement chuck Fig. No. 3, having a sharp female center. Provide a brass tube that will slide over the cement chuck. Tube is then filled with cement, staff inserted, and while the cement is soft, the outer end of the staff can be trued, when it is an easy matter to turn a pivot and turn the brass collar to fit the balance wheel. The position of the balance wheel is determined whether the spring lies above or below the balance. The object of having a sliding tube is to support the verge during the turning operation. The flags will have to be thinned down and the correct length of depth of escapement determined after the staff is placed in the watch. There is no practical rule to determine the actual length of these flags. It is best to make these alterations

by trial. After forming the verge, and twisting the flags to their proper angles, the entire staff is then hardened and tempered to a dark blue for wear and strength. The acting faces of the flags must be highly polished.

Watch Train Calculations Test Questions:

By W. H. Samelius

1. How many vibrations per hour does the balance make?

2. When the 4th wheel makes 7 revolutions, how many vibrations will the balance make?

3. How many vibrations per second does the balance make?

4. How many vibrations does the balance make in 24 hours?

5. If the barrel makes 1½ revolutions, how many revolutions will the 4th wheel make.

6. If the center wheel makes 6 revolutions, how many revolutions will the escape wheel make?

7. How many revolutions will the 3rd wheel make while the barrel makes 1¾ turns?

8. How many revolutions will the center wheel make when the balance makes 9 thousand vibrations?

9. How many vibrations does the balance wheel make to one revolution of the escape wheel?

10. If the mainspring yields 8 turns and the barrel has 90 teeth and the watch is to run 48 hours, how many leaves must the center pinion have?

11. The barrel has 70 teeth, center pinion has 14 leaves and the mainspring yields 6½ turns, how many hours will the watch run?

12. Mainspring yields 6 turns, center pinion has 12 leaves and watch is to run 42 hours, how many teeth must the barrel have?

13. If the watch stops periodically or balance falls off motion each six hours, where may we look for trouble?

14. If the watch stops each hour, where may we look for trouble?

15. If the watch stops every 7½ minutes, what may be the trouble?

16. If the watch stops each 5 minutes or falls off motion where may we look for the trouble?

17. If the watch stops every minute, where may we look for trouble?

18. Will the watch continue to run if one tooth is missing from escape wheel?

19. If a watch continues to run with one escape tooth missing, how much time will it gain or lose per hour?

20. If one tooth is missing from the 4th wheel and continues to run, how much time will watch gain or lose in one hour?

21. If the inside diameter of the barrel measures 15 millimeters and the diameter of barrel arbor measures 5 millimeters, and the thickness of mainspring to be fitted to the barrel is .16MM what length of mainspring would be required to give the maximum number of turns? Length of mainspring to be given in inches?

22. What changes to 4th wheel and escape wheel pinion would be required so second hand will show quarter seconds and balance to make 14,400 beats per hour? It is understood that hairspring will also have to be changed.

23. How many leaves must cannon pinion have when the hour wheel has 32 teeth, minute pinion 8 leaves and minute wheel 30 teeth?

24. How many teeth must hour wheel have when the cannon pinion has 9 leaves, minute wheel has 36 teeth and minute pinion 8 leaves? Note: Problem No. 23 and No. 24 apply to 12 hour dial.

25. If a watch gains 6 seconds in 48 minutes, how much will it gain in 24 hours?

Send Your Answers In Before

March 15, 1944

Then check for truth of same in

March Issue.

AERONAUTICAL INSTRUMENT SERVICE

Aircraft Instruments

EDITOR'S NOTE—Aeronautical Instrument Service is a subject untouched by publications in the Horological field, or in fact by any publication. In September, 1938, THE AMERICAN HOROLOGIST inaugurated such an educational service via prepared illustrated lectures to be used by U. H. A. A. organizations for the purpose of broadening our members' scope of knowledge in this field, which offered additional remuneration to those far-sighted enough to avail themselves of such knowledge.

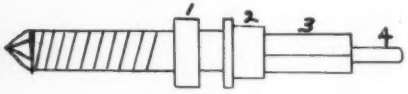
ARTICLE NO. 51 WILL APPEAR IN MARCH ISSUE

We Were Unable To Secure Government Release in Time for This months issue.

Its About Stems Again

By EMANUEL SEIBEL

(Continued from January



Quick Fit Number	Bearing	Pinion Shoulder	Square	Pilot
346¾	1.20	.95	.70	.40
336¾	1.20	.95	.70	.40
316½	1.20	.95	.68	.40
278¼	1.20	.95	.60	.50
148¾	1.20	.95	.60	.50
189¾	1.20	.90	.75	.55
346½	1.20	.90	.75	.35
129¼	1.20	.90	.70	.60
898¾	1.20	.90	.70	.55
148	1.20	.90	.70	.50
978¾	1.20	.90	.70	.50
208¾	1.20	.90	.70	.48
427¾	1.20	.90	.70	.40
116¾	1.20	.90	.70	.40
8510½	1.20	.90	.65	.40
538¾	1.20	.90	.65	.40
337¾	1.20	.90	.65	.35
9110½	1.20	.85	.70	.45
638¾	1.20	.85	.70	.40
206¾	1.20	.85	.68	.37
216¾	1.20	.85	.68	.37
528¾	1.20	.85	.65	.45
209¾	1.20	.85	.65	.45
628¾	1.20	.85	.65	.45
548¼	1.20	.85	.65	.40
696¾	1.20	.85	.65	.37
276½	1.20	.85	.65	.37
265½	1.20	.85	.63	.40
806¾	1.20	.85	.63	.40
169¾	1.20	.85	.60	.45
149¾	1.20	.85	.60	.45
155½	1.20	.85	.60	.40
788¾	1.20	.85	.60	.40
155	1.20	.85	.57	.40
338¾	1.20	.80	.65	.35
166¾	1.20	.80	.63	.40
556¾	1.20	.80	.60	.40
236½	1.20	.80	.60	.37
318¼	1.20	.80	.55	.45
428¾	1.20	.80	.55	.40
325½	1.20	.75	.60	.40
116	1.20	.75	.55	.40
135¼	1.20	.75	.55	.40
186	1.20	.75	.55	.40
605½	1.20	.75	.50	.40
816¾	1.20	.72	.52	.42
417¾	1.20	.70	.55	.40
164 2/3	1.20	.70	.48	.38
395¼	1.20	.70	.48	.38
425¼	1.20	.65	.50	.40
154 2/3	1.20	.65	.50	.40
357¾	1.20	.65	.45	.40
405¼	1.20	.60	.55	.40
418¾	1.20	1.05	.70	.50
3510½	1.25	1.00	.75	.50
128½	1.25	1.00	.73	.50
748¾	1.25	1.00	.70	.53
206½	1.25	1.00	.70	.50
216	1.25	.95	.73	.53
456¾	1.25	.95	.70	.49
738¾	1.25	.90	.75	.50
10010½	1.25	.90	.75	.50
358¾	1.25	.90	.73	.45

138¾	1.25	.90	.70	.45	1111¼	1.35	.90	.70	.50
197¾	1.25	.90	.68	.40	325¼	1.35	.83	.63	.39
266½	1.25	.80	.65	.38	184¾	1.35	.73	.52	.36
186½	1.25	.80	.62	.40	606¾	1.35	.70	.55	.40
449¾	1.25	.80	.60	.50	315¼	1.35	.70	.55	.39
466½	1.25	.75	.55	.38	355¼	1.35	.68	.54	.39
656¾	1.25	.70	.60	.40	786¾	1.35	.67	.52	.38
147¾	1.25	.70	.55	.40	445¼	1.35	.65	.45	.39
676¾	1.25	.70	.55	.40	1712	1.40	1.40	1.00	.70
115¼	1.25	.70	.55	.39	4717	1.40	1.40	.80	.80
234¾	1.25	.70	.55	.38	2910½	1.40	1.40	.75	.70
455¼	1.25	.70	.53	.40	6410½	1.40	1.40	.75	.60
126¾	1.25	.70	.52	.40	2910⅓	1.40	1.10	.80	.70
127¾	1.25	.70	.50	.40	11310½	1.40	1.10	.70	.58
124¼	1.25	.68	.52	.38	4917	1.40	1.10	.65	.60
646¾	1.25	.60	.45	.40	1412	1.40	1.05	.80	.70
4310½	1.30	1.30	1.00	.75	3210½	1.40	1.00	.80	.70
9010½	1.30	1.30	1.00	.70	2310⅓	1.40	1.00	.80	.60
1810½	1.30	1.30	1.00	.65	7410½	1.40	1.00	.80	.50
1710½	1.30	1.30	.95	.65	1211½	1.40	1.00	.80	.50
396¾	1.30	1.30	.80	.50	1910½	1.40	1.00	.75	.65
1312	1.30	1.30	.75	.60	8610½	1.40	1.00	.75	.60
4012½	1.30	1.30	.75	.60	3910½	1.40	1.00	.75	.60
8110½	1.30	1.10	.80	.60	549¾	1.40	1.00	.75	.50
1610½	1.30	1.10	.80	.55	8410½	1.40	1.00	.70	.60
3310½	1.30	1.05	.80	.70	9810½	1.40	1.00	.70	.55
9910½	1.30	1.05	.80	.55	2410½	1.40	.95	.80	.60
5710½	1.30	1.05	.80	.55	519¾	1.40	.95	.75	.65
848¾	1.30	1.05	.80	.50	808¾	1.40	.95	.70	.53
4410½	1.30	1.00	.85	.80	7010½	1.40	.95	.70	.50
9610½	1.30	1.00	.85	.80	516¾	1.40	.90	.75	.44
139¾	1.30	1.00	.80	.55	706¾	1.40	.90	.70	.65
539¾	1.30	1.00	.75	.60	437¾	1.40	.90	.70	.50
6610½	1.30	1.00	.75	.60	618¾	1.40	.90	.70	.50
6510½	1.30	1.00	.75	.50	378¾	1.40	.90	.70	.40
236¾	1.30	.97	.58	.45	529¾	1.40	.90	.70	.40
9910½	1.30	.95	.80	.47	2210½	1.40	.90	.65	.60
1311¼	1.30	.95	.70	.60	688¾	1.40	.90	.65	.40
6210½	1.30	.95	.70	.45	187¾	1.40	.88	.70	.50
119¾	1.30	.95	.65	.50	626¾	1.40	.85	.75	.50
218¾	1.30	.90	.70	.50	776¾	1.40	.85	.70	.40
118¾	1.30	.90	.65	.50	448¾	1.40	.85	.70	.40
888¾	1.30	.85	.70	.40	7510½	1.40	.85	.70	.35
167	1.30	.80	.60	.38	467¾	1.40	.85	.65	.45
176	1.30	.80	.58	.42	317¾	1.40	.78	.60	.35
135	1.30	.75	.50	.40	665½	1.40	.70	.52	.40
485¼	1.30	.70	.54	.39	295¼	1.40	.60	.50	.37
144 2/3	1.30	.60	.50	.33	127	1.40		.80	.60
127¼	1.35	1.00	1.05	.60	616¾	1.40		.80	.48
179¾	1.35	1.00	.75	.60	866¾	1.40		.80	.48
359¾	1.35	.95	.75	.60	315½	1.40		.78	.48
1611¾	1.35	.90	.75	.65	1141¼	1.40		.77	.50
1210½	1.35	.90	.70	.65	1213	1.45	1.45	.80	.65
2510½	1.35	.90	.70	.60	1413	1.45	1.20	.90	.80
1811¼	1.35	.90	.70	.60	5510½	1.45	1.05	.80	.65

4117	1.50	1.50	1.10	.90
4017	1.50	1.50	1.00	.90
5010½	1.50	1.50	.90	.60
1411	1.50	1.50	.80	.60
1813	1.50	1.50	.75	.70
1613	1.50	1.30	.95	.70
1612	1.50	1.30	.95	.60
446½	1.50	.97	.72	.60
10110½	1.50	.85	.70	.50
406¾	1.50	.78	.52	.38
1511¼	1.50		1.00	.70
8310½	1.50		.95	.70
5017	1.55	1.55	.80	.65
1912	1.60	1.30	.95	.60
6810½	1.60	1.25	1.00	.70
1516	1.65	1.40	1.00	.60
1917	1.70	1.40	.95	.80
3517	1.70	1.30	1.00	.80
2013	1.70	1.30	1.00	.80
1212	1.70	1.25	.90	.80
1513	1.70	1.20	1.00	.80
6310½	1.70	1.20	.90	.70
1113	1.70	1.15	.90	.75
1112	1.70	1.10	.90	.80
1512	1.70	1.10	.90	.70
10410½	1.70		.80	.65
7910½	1.70		.80	.65
658¾	1.70		.80	.65
117¼	1.70		.80	.65
1217	1.80	1.60	1.15	.75
3917	1.80	1.50	1.00	.60
3417	1.80	1.20	.95	.90
1122	2.00	2.00	1.50	.90
1619	2.00	2.00	1.25	.60
2219	2.25	2.25	1.20	1.10
1222	2.25	2.25	1.15	1.10
1224	2.75	1.85	1.30	1.15
1324	3.25	3.25	2.45	1.05
1224	3.25	1.75	1.30	1.05

Watch Lost in Canada Returned From Germany

One of the odd, and interesting, little stories of this war involves an woman's expensive wrist watch which found its way in a Canadian Red Cross parcel to a German Prison camp. A British army sergeant received the parcel containing the timepiece, which will soon be on its way back to its owner in Toronto, Ontario.

On June 8, 1942, Mrs. Harry Nixon, of Toronto, who served overseas for three years as a nurse in the last war, discovered after a day of packing prisoner-of-war parcels at a Red Cross depot that she had lost the back and works of her diamond and platinum wrist watch. It wasn't until November, 1943, a year and a half later, that Mrs. Nixon next heard of her missing watch.

Canadian newspapers carried a story from London, England, which told how Sergeant A. Dee, of Birmingham, a repatriated British Tommy, had brought back the best part of a woman's watch from Germany. Dee revealed that he had found the watch in a food parcel beneath chocolates and cigarettes.

In a letter to the Canadian Red Cross in England, which was quoted in the newspaper story, Dee wrote the following: "It was and still is in going condition, even the hands being undamaged. Could you please help me restore it to its owner, for I presume it was wrenched from a lady's wrist while she was packing the Red Cross parcel. The back is engraved with three initials."

When Mrs. Nixon saw the story in a Toronto newspaper, she realized immediately that this was her watch, which had carried the initials, "W. M. N." engraved on the back.

"I am thrilled to have found it at last," she said, "and I shall be proud to wear the proof positive that the boxes we pack do reach their destination."

Advice To Young Watchmakers

PSB. July 15th, 1930, PWCM

The construction of a watch depends entirely upon how it is made; the wheels have nothing to do with the case. A small watch will keep as much time as a large one and sometimes more. The reliability of the watch as a timekeeper depends upon how big a liar the owner is; there is no exception to this rule. In order to be a good watchmaker it is not necessary to know anything about a

watch; you must know how to shake a watch, look wise and hold an eyeglass; if you cannot look wise try some other business. The proper thing to do when you do not know what ails the watch is to say the mainspring is broken; this will give the party confidence in you and show him you understand the business; all first-class watchmakers keep a broken mainspring on their bench to show the customers when they come in what ailed their watch. Some watchmakers will say the watch is dirty, but as this is a reflection upon the owner it does not take so well. The regular price for repairing a watch is $2.50; it makes no difference what you do to it; some will take out three or four wheels, and then charge the owner $2.50 for what is left. This is not right, as it lowers the high moral tone of the business, and will eventually lead to deception.

Some people have great ideas what a watchmaker can do. A young lady once sent in a very large, old fashioned bulls-eye watch and wanted to have two small ones made from it; one for her and one for her sister. When told it could not be done she left with a poor opinion of the skill and ability of watchmakers; thus loves labor lost and truth crushed to the earth. But do not be afraid of telling the truth; you may get caught at it someday and then you can wear diamonds. If any customers complain of your prices, tell them that the skill and dexterity required in the manipulation of the fine and intricate parts of so costly and beautiful a watch is hardly commensurate with the importance of the object required, and that if they ever wish to sell the watch you will give them $2.00 for the first chance to buy it. You can always guarantee a watch to run within one second a year, but state that it will take time to get it regulated down to it; the owner will die, or the watch will meet with some accident before you can get it done, so you are safe in saying so. Never have a watch done the first time the owner comes for it, as that will give away the business, and he will think you have not done it well, or that you have not much work, or it was an easy job.

The most difficult thing to do to an old watch is to get the hayseeds out of it and not lose any. It is important that you should be "the most reliable dealer in town", and "the best workman on both sides of the state"; this you can do in the daily and weekly papers; also that you should come from the watch factory. Watch oil comes in pint and quart bottles; pints are 25c, quarts are 43c. It is made from the seeds of the sun flower at Los Angeles, Cal. For tools you will need a grindstone, a monkey wrench, a hatchet and a lead pencil.

With these few hints and two quart bottles of watch oil and $5000 in cash an energetic young man can start in business these days.

"Ho hum"—what next?

Lubrication of the Oilstone

By Christson

In a recent issue of a highly respected trade magazine a questioner asked about lubricating the oilstone. He asked if lard oil could be used on the stone and, of course, the answer was in the negative.

Lard oil has its place in the field of horology, and a valuable place; it should be used only for lubricating the various types of cutting tools, for that purpose it has no superior so far as I can determine.

But for the oilstone we have a different problem entirely; in the first place the oilstone is used for dressing up a tool, the cutting action is dependent upon the grade or degree of coarseness of the stone. And the lubricant used is intended to float the minute particles of metal out of the pores of the stone, by this floating action the minute particles of metal are prevented from ganging up in the pores of the stone, they are continually in action and moved from place

(Continued on Page 38)

How to Replace a Regulator Pin

By Harry Fried, Secretary, Horological Society of New York

CAUSES: Opening the Regulator with tweezers; using dull screwdrivers; holding regulator in fingers;
EFFECT: Watch Will lose fifteen to twenty minutes time daily.
TOOLS NEEDED: Small screwdriver, pinvices, bench block, staking set, tweezers, straight pin, oilstone slip, No. 4 file, filing block.

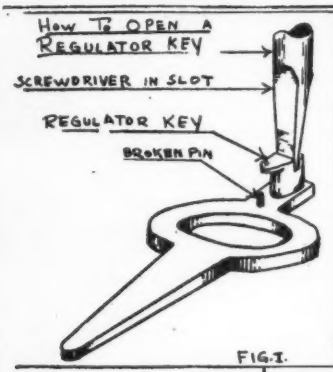


FIG. I.

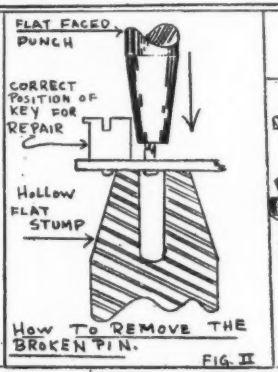


FIG. II

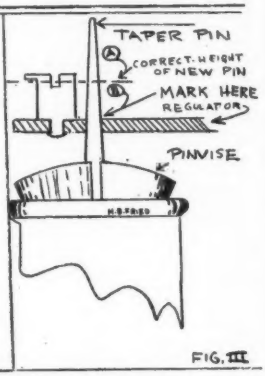
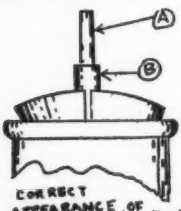


FIG. III



CORRECT APPEARANCE OF PIN BEFORE REPLACING. FIG. IV

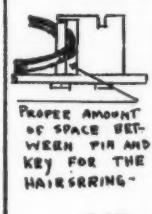


FIG. V

Figure I.. Place the regulator on a flat surface and open key as shown in this Figure.
Figure II... Drive out the broken pin from the side shown in this drawing.
Figure III..Taper pin should fit tightly in the regulator.Mark with thin file at points (A) for height and (B) for point where it will be filed cylindrically as shown in—
Figure IV..How the pin should look after filing and ready to place into the regulator.
Figure V. Shows the pin inserted and proper amount of clearance for vibration of the hairspring..
CAUTION:In fig.II,make the cylindrical part (A) a little lower onto part (B)so that when the pin is driven into the regulator it will be tight enough not to be moved by the spring.

to place on the stone and never permitted to settle into any one particular spot and thus fill the pores under that spot.

While I may go to extreme a little in my selection of oilstones I have always felt justified, and my idea has not been proven in error so far. I use a very coarse stone for roughing down such tools as gravers and the heavier screw drivers. Then I next go to a soft oilstone of the Pike type for the next step in finishing up my gravers, the very coarse stone is sufficient for screwdriver bits, then in the final finish of my gravers I go to the hard arkansas or pike oilstone and make the finishing cuts and this usually gives me a graver that is finished to a degree that is entirely satisfactory for all general purposes in turning.

HAVE YOU PAID 1944 DUES?

Those who have not will be removed from the mailing list and paper discontinued from March on.

NEW YORK HOROLOGICAL SOCIETY, INC.

New York Horological Society, Inc., held their first meeting January 3rd. Morris Klein, President presiding.

The technical portion of the evening was centered upon the lecture on Escapement, Design and Drawing, given by Henry Fried, Executive Secretary, which proved to be very

enlightening. Mr. Fried was thanked by President Klein who urged him to prepare other talks along similar lines for future meetings.

Mr. Joseph Sasek will give a demonstrated lecture this month on "Wheel Cutting." Mr. Sasek also plans to discuss the making of inexpensive cutters without taking too set up hints and ideas.

The Jewelry Trade In Britain's Fifth War Year

Since July 31, 1942, the manufacture of jewelry has been restricted to clocks, watches, and gem diamonds, identification bracelets and wristlets of non-precious metal, cuff links, studs, watch chains, and plain wedding rings.

Wedding Rings

Brides prefer 22-carat gold rings to the 9-carat utility ring, but the former are no longer made. Even the supply of the utility type at

"KNOW THE ESCAPEMENT"

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One of the latest Horoogical Books of value has just been completed and is ready for your library.

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present does not equal the demand, and from October, 500,000 utility rings will be made available during the following twelve months—25 per cent more than the estimated marriages for the year.

Watches

Watches, which were formerly imported from Switzerland, have not been manufactured for over two years. A West London shop had the last supply of one watch 18 months ago.

Alarm Clocks

Trade Unions now decide which workers have the greatest need for alarm clocks, and at first, those Trade Unions concerned will distribute the required buying permit to rail and road passenger transport workers.

To solve the alarm clock shortage, an Austrian refugee has invented a gadget which converts an ordinary clock into an alarm clock. Production has been approved, and the inventor has been requested to make priority deliveries to industrial areas. It will be marketed through the trade shortly, selling at low prices at watchmakers and multiple stores.

Fountain Pens

Since rubber, vulcanite and celluloid are used for war purposes, the output of pens is a quarter of the pre-war supplies, most of which goes overseas to the services.

Watch Depreciation And Obsolescence

By FRED MERISH

Depreciation is a factor that is often overlooked in making up the profit and loss statement, yet, wear and tear mean expense. If not shown on the profit and loss statement, depreciation becomes a hidden expense for the time being, but eventually, it shows its ugly head and then, the net worth must take a licking in the form of a heavy write-down in asset value.

Every watchmaker-jeweler who lists the ownership of business property on a balance sheet, fixtures, business cars, tools and mechanical equipment, should also carry an account for depreciation, charging profits each year with an estimated deduction for wear and tear and crediting a reserve for depreciation. In this way, depreciation becomes an annual internal expense and you get a deduction from gross income on your income tax return.

Depreciation does not apply to inventories or to stock in trade or land. Goodwill cannot be depreciated. If you have goodwill on your books, write it down to $1 to get the "water" out of the net worth but do not deduct the write-off from income on your tax return. Depreciation of personal property is not allowable by the income tax collector. If you lease a property and make improvements thereon, you can depreciate the cost, if the property is used for business purposes. Use the straight-line method for computing depreciation, whereby the original cost is written down in equal annual installments over the estimated life of the assets. Take into consideration salvage or scrap value of each asset when setting the depreciation rate. Accounts receivable should be protected against loss by charging off a percentage of credit sales to profits yearly and crediting a reserve for bad accounts. Determine the charge-off by averaging the percentage of bad debt losses for the 3 previous years. Small tools of little monetary value may be written off in the year of purchase.

These depreciation rates are reasonable for equipment found in stores operated by watchmaker-jewelers.

Furniture and fixtures	10% yearly
Motor driven equipment	10% yearly
Brick buildings	3% yearly
Frame buildings	4% yearly
Concrete buildings	2% yearly
Delivery trucks	20% yearly
Office equipment	10% yearly
Non-mechanical repair tools	25% yearly

Business buildings may depreciate in value too but it is unwise to write

up such assets. Wait until you collect the profit before you spend it.

Normal obsolescence, attributable to the normal progress of art, economic changes, inventions and inadequacy to the growing needs of the trade or business, is included with the depreciation percentages given in the foregoing, but forced or abnormal obsolescence is another thing and not predictable. It occurs in abnormal times, such as these, which beget radical economic changes and revolutionary developments in the business world. We all know that there will be a big postwar change in production and merchandising equipment. Store front manufacturers, for example, are developing new products probably of plastic, for the retailers of tomorrow and estimate that ½ billion dollars in new store fronts will be sold soon after the war. Other marked improvements in merchandising and operating equipment are in the cards. To keep abreast of competition, merchants must modernize in the postwar period even though the equipment on hand then would normally be usable for years. Some replacements will be made on units depreciated in the normal way. Other replacements will be made because of forced obsolescence. To take care of forced obsolescence, it is advisable to charge off 10 per cent of equipment cost against profits, excluding trucks, for the duration, thus building up a reserve to cushion any loss on premature scrapping of your fixtures and other assets used in merchandising and repair service.

In the final analysis, remember that depreciation is only an estimate. There is no way to calculate it to the penny. We have never known a case where the depreciation charges at termination of the write-downs have equaled original cost on the books, whether or not salvage value was taken in consideration. Nevertheless, care should be taken in setting a rate that will approximate wear and tear as accurately as possible, thus reducing the hazard of loss.

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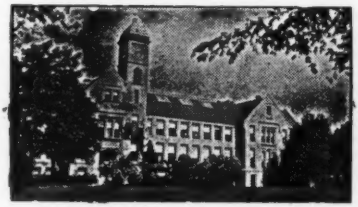

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How About Watches

From Kansas we learn of a deplorableable condition practiced in other cities and states, lets stop the inroads on our business.

From a Wichita newspaper we read as follows:

About Watches

I have a friend in the Army who is station in New York City. The other day I received a letter from him telling me he had a chance to buy a goodly assortment of new Swiss watches and asking me if I'd be interested. I was!

The watches arrived this week. They are honeys. Beautifully cased, their Swiss movements have from four to fifteen jewels and many of them are of the SHOCKPROOF variety with SWEEP SECOND HANDS—a type of watch that just now is very scarce. The perfect gift for anyone in the Air Corps.

Before your shopping is complete, drop in and look at this watch assortment. Chances are you'll find exactly what you want in a price range that varies from $27.50 to $75. I'll be glad to show you!

—Accredited—Pharmacy.

Mr. Brasfield ran the following in next issue:

About Watches

Only a jeweler is in position to furnish you watches at all times, that are manufactured for the use of

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Instrument Repairing

American citizens who demand, and are entitled to, a timepiece that they can continue to be proud of and depend upon for years to come.

Why? . . .

Because your jeweler sticks to his own business. He does not attempt to fill perscriptions or recommend brands of pink pills or elixers, the merits of which anly a doctor or a pharmacist is in a position to judge.

BUT? . . .

We don't think you would get any more satisfaction from a watch sold you by a pharmacist than you would fro ma perscription that was filled by a watchmaker. You would never be satisfied to give a watch to a loved one or a friend that an ethical jeweler would not attempt to repair, because these watches are manufactured for foreign trade and would never be acceptable to an American jeweler with a reputation for honesty and fair dealing to maintain.

W. B. Brasfield, Chairman, Horological Association of America for Time Inspection; Kansas Retail Jewelers.

The Wichita Horological Guild published the following:

About Watches . . .

Don't take chances on buying a watch from a blacksmith shop or a pharmacy. While the operators of these places are specialists in their respective lines, their specialty is not watches, and we don't think they would know any more about selecting a good timepiece than we would about shoeing a horse or filling your prescription.

A watch that is sold by a reputable jeweler can be repaired when it needs repairs by a member of THE HOROLOGICAL GUILD.

Before you pay out good money for a watch from any other source, ask your watchmaker for his opinion. His advice is free, and may save you both money and worry in the future. —Wichita Horological Guild Members.

The World's Most Elaborate Clock

By Frank Cipolon

Perhaps the most curious, most extravagantly constructed clock the world has ever known is the brainchild conceived by Nicholas Lipp, a Frenchman, whose mechanical genius remains unequaled even in this modern-day age of mechanical machines and gadgets.

In spite of its age, the clock is amazingly accurate and its mechanism is justly celebrated by all who have viewed it. It adorns the aisle near the choir in the magnificent cathedral dedicated to St. John, at Lyons, in France. It has remained there since its completion in 1598, having been tampered with but once —and then only to improve and clean it.

A cockerel, which stands at the top of the clock, flaps his wings and crows three times every third hour. Beneath the clock is a large compartment. At the crow of the cockerel, a door opens and the Virgin Mary appears; from the door on another part of the compartment, the Angel Gabriel emerges, meets and salutes her. At the same time still another door located in the alcove part opens and the Holy Ghost in the form of a dove descends on the Virgins head.

After this spectacle, the figure of a priest issues forth and with uplifted hands blesses the congregation.

Collection of Clocks In Big Optical Plant

By F. N. Hollingsworth

One of the hobbies of J. Cheney Wells, who is one of the three chief owners and executives of the American Optical Company at Southbridge, Massachussetts, is collecting rare clocks, particularly American made ones. In the main factory of the company's enormous plant at Southbridge is an array of at least 200 clocks. scattered through the offices and covering the whole range of New Eng-

wooden works were all that could be land clockmaking, when pieces with found. Every one of the clocks in the collection is a museum piece. There are Simon Willards, hanging beside other grandfather clocks made by Daniel Munroe, one of Willard's best disciples. There are many of the famous Eli Terry Connecticut clocks, in great variety. In one office is a clock by Joseph Cummins and an Aaron Willard clock. There are several of Curtis girandole clocks and others from the workshop of old Nathaniel Balch, of Newburyport, Massachussetts. All are going and keeping good time. Each executive in the plant holds himself responsible for the care, including the winding of a certain number of the clocks, including those in his own official quarters.

But the clocks are not considered by Mr. Wells as his own personal estate, to be willed or handed down to members of his family. He holds them in trust, as it were, for a museum that Cheney and Albert Wells, his brother, intend to build in the village of Sturbridge, Massachussetts, hard by Southbridge. Here they plan the construction of 25 to 30 buildings in a group to be known as "Old Quinebaug," after an Indian village of that name. These buildings will house early New England industries, including a clockmaker, who can make or repair wooden works. There will be a shoemaker, for example, laboring with his hand tools, just as the early bootmakers of New England did in turning out various styles of boots that lasted for years, as against the (all too frequently) weeks of latter-day shoes.

5,000 TONS OF BRASS AND COPPER

Some 5,000 tons of brass and copper are available for manufacture of household war clocks and similar "permitted civilian goods," the War Production Board has announced.

One hundred employees of Boeing can no longer blame their alarm clocks for tardiness or absenteeism. When a recent survey at the plant disclosed the need for CLOCKS, the personnel department got in touch with a Seattle jeweler. He in turn finally found a firm in New York which had 150 ALARM CLOCKS from Switzerland. After much telegraphing back and forth, 100 ALARM CLOCKS were allotted to Boeing.

"And did they go fast," said a member of the personnel department. "The only solution was to allot them to persons who needed them most. But 100 CLOCKS is only a drop in the bucket, and more Boeing workers still need CLOCKS."

PENNSYLVANIA GUILD NO. 1

The "Horological Association of Pennsylvania" Guild No. 1, held February 2nd, meeting in the Esquire room of the Roosevelt Hotel in Pittsburgh, Pa. With a very large attendance.

We wish to congratulate these men for coming out to a meeting on such a stormy night. It is men with a spirit like this that will make this Association a success.

The foundation of this association has been built of high ideals for great benefit to the watchmaker. We are hoping you will realize this and come to the meetings prepared to offer something constructive to the watchmaker instead of carrying out petty personal feelings from month to month.

Our officers have been wanting large attendances they have been getting them. Now may we ask? How are they going to hold these attendances as meetings are repeats of previous meetings.

Let's make the March meeting the largest meeting ever held by this association and lets have something to offer beneficial to one another.

G. L. Cogley.

Watchmakers Certificates

On January 15, 1944, the Examining Board of the Horological Institute of America met and awarded Certified Watchmaker certificates to the following watchmakers who passed the required examinations:

Oliver J. Danielson, Vallejo, California, employed by Mare Island Navy Yard; Kenneth C. Denney, Tulsa, Oklahoma, employed by G. J. Sloan; Robert Nelmes, Lafayette, California, employed by Mare Island Navy Yard, and Max S. Nelson, Berkeley, California, employed by Mare Island Navy Yard.

R. E. Gould, Secretary,
January 24, 1944.

Los Angeles Guild, Horological Association of California, Inc.

Regular meeting held January 19th, 1944, A. J. Lyons, Chairman presiding.

Twenty-seven of the members signed up in the November meeting were introduced at this time.

John J. Nooyen continued his talk on hairspring trouble and brought out a number of interesting points in regard to this type of work.

R. W. Applegate introduced Mr. H. J. Finch, of the Douglas Aircraft Co., the speaker of the evening. Mr. Finch gave a very interesting talk stressing the importance of maintaining a clean and well kept shop and the need of constant study to improve one's ability.

Eighteen new members were signed up at this time and a number of men who were former members, renewed their memberships.

After a recess the annual election of officers was held with the following results: Chairman, R. W. Applegate; Vice-Chairman, R. P. Gallien; Secretary-Treasurer, R. B. Schorsch, and the Board of Directors composed of the following men: John J. Nooyen, Louis Hayman, A. G. Lyons, J. H. Upton, and Noel Fletcher.

The door prize for the evening was a $25.00 War Bond donated by Stanley Jacobs and was won by W. J. Easterford.

Meeting adjourned at 10 p. m.

R. B. Schorsch, Secretary.

SPECIAL NOTICES

WANTED

Two Watchmakers. Precision Watch Repairing Co., Noblesville, Indiana.

WATCHMAKERS

Who would like to locate in an industrial city under ideal conditions. Please give reference ability and salary expected in first letter. Not a trade shop. The S & H Watch Repair Service. Suite 214, Odd Fellows Building South Bend, Indiana.

WATCHMAKER

Who would like to leave his bench and TRAVEL AS BANK TIMELOCK INSPECTOR. Good steady job. Immediate and post war. Essential work. Straight salary plus expenses. Specialized training at our expense. Address Box No. 544.

WANTED

Watchmaker, First class or Second-Watchmaker who wishes to finish learning his trade. Opportunity to learn watchmaking, stone setting, engraving and jewelry manufacturing. Very good pay, overtime if desired. Mostly essential work. Congenial young employer. Steady work. Will help you locate living quarters Send photo and reference in first letter. Vern Webster, Jewelers, Hays, Kansas.

FOR SALE

5 Swiss wrist-watches in white cases, 6¼L, 6¾L, 10½ L and baguettes, requiring some repairing, $15.00. 500 imitation stones for repairing jewelry $2.00. B. Lowe, Box 311, St. Louis 1, Missouri.

WANTED TO BUY

COLLAR BUTTONS WANTED, Cufflinks, findings, broken jewelry, broken chrome bands, watch cases, dead stock of jewelry, emblems, stick-pins, stones, odds and ends, etc. Check sent promptly. B. Lowe, Box 311, St. Louis 1, Missouri.

WANTED TO PURCHASE

1941 or 1942 Model watch cleaning-machine, must be in first class condition. Peerless make preferred. Will pay good price for good machine. Advise fully. To E. Pitre Jeweler, P. O. Box 128, Ville Platte, La.

TOOLS FOR SALE

New and Used Wheel-Cutters; Slide-Rests; Lathes and Attachments. Cash paid for Used Watchmakers' Lathes and Attachments. R. P. "Dick" Gallien, 220 W. 5th St., Los Angeles, Calif.

FOR SALE

10 Swiss wrist-watch movements suitable only for material, $5.00. One dozen new chrome 10½L cases $4.00. New 6¼ and 6¾L cases $3.50 per dozen. B. Lowe, Box 311, St. Louis 1, Missouri.

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A man with experience wanting permanent position in Colorado. Contact Box 543, American Horologist, 228 16th St., Denver, Colorado.

NOTICE

Owing to the amount of work on hand, I will be unable to take any more until further notice. Jes I. Hansen, 306 Steel Bldg., Denver, Colorado.

WATCHMAKERS

"Rules and Practice for Adjusting Watches" and "Practical Balance and Hair Spring Work". Strictly practical books by Walter Kleinlein. Your jobber or trade journal.

Watch Repairing and Jewelry Repairing for Trade: We take care of mail order work promptly. Best Reference. VAROLL, Room 207, Republic Bldg., Miami, Florida, Dan Varoll. 5-44

FOR SALE

One Pound Broken Movements and material, $3.50. 100 Wrist Watch Crowns, $3.00. Two gross assorted new watch crystals, $3.25. One dozen assorted clean used yellow wrist watch cases $9.00. Write for prices of used watch movements. B. Lowe, Box 311, St. Louis 1, Missouri.

WANTED

Western Electric Watchmaker. Must be in perfect condition. Give price and model in first letter. Wheeler's Jewelers ,1307 Market Street, San Francisco, 3, California.

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Swing ..... 3.97" (10cm)
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DESIGN—The lathe illustrated above is designed to meet the most exacting requirements for precision work. The form of the bed and swing are such that the head stock, tail stocks and attachments are interchangeable with any others of the WW style.

BEARINGS—The spindle bearings are designed for the maximum sensitivity and have straight holes. They are split and adjustable for wear. Bearings of this type are superior to the double cone which almost never wears uniformly and is apt to choke when drilling or under a heavy cut. Lubrication is by means of oil cups and felt oil retainers.

TAIL STOCK—The tail stock is made with an offset body to allow the maximum clearance for the compound slide rest. The standard lathe is supplied with a plain push tail stock.

ATTACHMENTS—When used with our Slide Rest, Grinder or Milling Tool, a wide range of operations can be performed on this lathe. If equipped with a turret attachment and double tool cross slide, it becomes a small hand screw machine which may be used to advantage in the production of small instrument parts.

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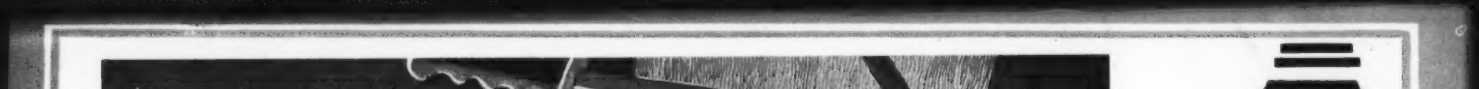
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